General

Guideline Title

Diagnosis and treatment of respiratory illness in children and adults.

Bibliographic Source(s)

Short S, Bashir H, Marshall P, Miller N, Olmschenk D, Prigge K, Solyntjes L. Diagnosis and treatment of respiratory illness in children and adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2017 Sep. 76 p. [159 references]

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Snellman L, Adams W, Anderson G, Godfrey A, Gravley A, Johnson K, Marshall P, Myers C, Nesse R, Short S. Diagnosis and treatment of respiratory illness in children and adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jan. 86 p. [194 references].

This guideline meets NGC's 2013 (revised) inclusion criteria.

NEATS Assessment

National Guideline Clearinghouse (NGC) has assessed this guideline's adherence to standards of trustworthiness, derived from the Institute of Medicine's report Clinical Practice Guidelines We Can Trust.

= Poor = Fair = Good = Very Good = Excellent

Assessment	Standard of Trustworthiness
YES	Disclosure of Guideline Funding Source
	Disclosure and Management of Financial Conflict of Interests

	Guideline Development Group Composition
YES	Multidisciplinary Group
UNKNOWN	Methodologist Involvement
▮▮▮▮▯	Patient and Public Perspectives
	Use of a Systematic Review of Evidence
▮▮▮▮▯	Search Strategy
▮▮▮▮▯	Study Selection
▮▮▮▮▮	Synthesis of Evidence
	Evidence Foundations for and Rating Strength of Recommendations
▮▮▮▮▯	Grading the Quality or Strength of Evidence
▮▮▮▮▮	Benefits and Harms of Recommendations
▮▮▮▮▮	Evidence Summary Supporting Recommendations
▮▮▮▮▯	Rating the Strength of Recommendations
▮▮▮▮▮	Specific and Unambiguous Articulation of Recommendations
▮▮▯▯▯	External Review
▮▮▮▮▯	Updating

Recommendations

Major Recommendations

Note from the National Guideline Clearinghouse (NGC) and the Institute for Clinical Systems Improvement (ICSI): The recommendations for diagnosis and treatment of respiratory illness in children and adults are presented in the form of a table with a list of evidence-based recommendations and four algorithms, accompanied by detailed annotations. The algorithms are provided in the original guideline document at the ICSI Web site for Diagnosis and Treatment of Respiratory Illness in Children and Adults (see the "Guideline Availability" field).

Viral Upper-Respiratory Infections

Antibiotics

Recommendation: The ICSI work group does not recommend antibiotics for treatment of common cold symptoms in children and adults.

> Quality of Evidence: Low; Strength of Recommendation: Strong
> Benefit: Not treating with antibiotics eliminates the possible side effects of antibiotics such as nausea, vomiting, allergic reactions and *Clostridium Difficile* infection. In addition, better

stewardship of antibiotics helps reduce potential for antibiotic resistance.
Harms: None
Benefit-Harms Assessment: Given that antibiotics do not help resolve viral infections, they are not indicated for treatment in viral infections such as common colds. There are no harms by not treating common colds with antibiotics.
Relevant Resources: Kenealy & Arroll, 2013

Acute Pharyngitis

Diagnosis

Consensus Recommendation: It is the consensus of the ICSI work group to NOT test for Group A Streptococcal (GAS) pharyngitis in patients with modified Centor criteria scores less than three or when viral features like rhinorrhea, cough, oral ulcers and/or hoarseness are present.

Testing should generally be reserved for patients when there is a high suspicion for GAS and for whom there is intention to treat with antibiotics. This involves a shared decision-making conversation with patients and/or caregivers.

Benefits: Judicious testing would reduce costs associated with over-testing. Shared-decision making discussions can help patients and/or caregivers understand the benefits and risks of testing and treatment.
Harms: Because fewer patients may be tested, there may be cases of GAS that are not diagnosed. It is unknown whether this would lead to increased complications.
Benefit-Harms Assessment: The benefit of more prudent testing and shared decision-making conversations about testing and/or treatment outweigh the possible harms.
Relevant Resources: Hersh et al., 2013; Pelucchi et al., 2012; Shulman et al., 2012

Treatment

Antibiotics

Recommendation: It is the work group consensus that empirical antibiotic treatment of suspected GAS pharyngitis is not recommended.

There is inconclusive evidence regarding antibiotic treatment of GAS pharyngitis in low-risk patients (no history of rheumatic fever, no chronic or severe presentation of illness and/or immunocompromised). The work group recommends using shared decision-making with patients and/or caregivers to determine whether to test and treat with antibiotics.

Quality of Evidence: Moderate-High; Strength of Recommendation: Strong
Benefit: Shared decision-making use will result in more prudent use of GAS testing and antibiotics.
Harms: Shared decision-making may lead to fewer patients being tested and/or treated. Those not treated may have longer symptom duration and increased risk of complications.
Benefit-Harms Assessment: Antibiotic treatment of GAS reduces symptoms by one to three days and reduces complications. However, dangerous complications of GAS such as acute rheumatic fever and abscesses are rare, and antibiotics have the risk of side effects as well as creating bacterial resistance. Given these considerations, judicious use of testing and antibiotics based on shared decision-making conversations with patients and/or caregivers is appropriate.
Relevant Resources: Little et al., 2014; Spinks, Glasziou, & Del Mar, 2013; Spurling et al., 2013; Kenealy, 2011; Robertson, Volmink, & Mayosi, 2005; Zwart et al., 2000

Non-Infectious Rhinitis

Treatment for Allergic Rhinitis

Medications

Recommendation: The ICSI work group recommends intranasal corticosteroids as initial treatment for

allergic rhinitis.

Quality of Evidence: High; Strength of Recommendation: Strong
Benefit: Evidence shows that intranasal corticosteroids are very effective single agents for controlling the spectrum of allergic rhinitis symptoms in children and adults. They reduce the symptoms of nasal blockage, itching, sneezing and rhinorrhea.
Harms: The most common side effects of intranasal corticosteroids are nasal irritation (dryness, burning and crusting) and epistaxis. Nasal septal perforation has been reported.
Benefit-Harms Assessment: Given the efficacy and relative safety of intranasal corticosteroids in controlling the spectrum of allergic rhinitis symptoms and relative to harms, which can be decreased by use of the proper technique for administration, the ICSI work group recommends intranasal corticosteroids as initial treatment for allergic rhinitis in children and adults.
Relevant Resources: Weiner, Abramson, & Puy, 1998

Acute Sinusitis

Diagnosis

Consensus Recommendation: To diagnose acute bacterial rhinosinusitis (ABRS), the ICSI work group consensus is there are two clinical presentations where ABRS has a higher likelihood of being present:

Persistence of symptoms consistent with acute rhinosinusitis lasting 10 days or more without evidence of improvement
Symptoms are worsening – new onset of fever, headache or increase in nasal discharge after a viral upper-respiratory infection (VURI) that lasted five to six days and the patient was initially improving (double worsening or double sickening)

Clinical presentation of severe symptoms and high fever of 102ºF for at least three to four days from onset of illness should not routinely be used as criteria to diagnose patients with bacterial sinusitis. The diagnosis of these patients should be made on an individualized basis depending on the entire clinical scenario

Benefit: Appropriately diagnosing ABRS based on clinical presentations decreases the likelihood of inappropriate treatment with antibiotics. Thus, side effects of antibiotic use and antibiotic resistance are avoided.
Harms: Patients could potentially be misdiagnosed and might not get appropriate treatment for their condition.
Benefit-Harms Assessment: Given the need for prudent antibiotic use, it is important that an appropriate diagnosis of ABRS is made.
Relevant Resources: Rosenfeld et al., 2015; Wald et al., 2013; Chow et al., 2012

Treatment

Recommendation: Consider symptomatic care as initial treatment for patients with suspected acute bacterial rhinosinusitis (ABRS).

Consider prescribing a delayed or an immediate antibiotic based on degree of illness, comorbidities and after shared decision-making discussion with patients who meet criteria for ABRS.

Quality of Evidence: Moderate-High; Strength of Recommendation: Strong
Benefit: Benefits of prudent antibiotic use decrease the possibility of serious side effects of antibiotic use and antibiotic resistance.
Harms: The recommendation leaves the treatment with antibiotics at clinician discretion. Not treating with antibiotics immediately or delaying treatment may prolong symptom duration and there is a possibility of complications from acute sinusitis.
Benefit-Harms Assessment: Considering small clinical benefit of antibiotic use (small reductions in duration of symptoms), the rarity of severe complications from acute rhinosinusitis and the potential for side effects of antibiotic use, antibiotics as initial treatment among immunocompetent adults

with acute, uncomplicated rhinosinusitis may not be merited. Instead a delayed or an immediate antibiotic prescription strategy should be considered based on degree of illness, comorbidities and after shared decision-making discussion with patients who meet criteria for ABRS.
Relevant Resources: Burgstaller et al., 2016; de la Poza Abad et al., 2016; Sng & Wang, 2015; Ahovuo-Saloranta et al., 2014; Lemiengre et al., 2012

Definitions

Quality of Evidence and Strength of Recommendations

Category	Quality Definitions	Strong Recommendation	Weak Recommendation
High Quality Evidence	Further research is very unlikely to change confidence in the estimate of effect.	The work group is confident that the desirable effects of adhering to this recommendation outweigh the undesirable effects. This is a strong recommendation for or against. This applies to most patients.	The work group recognizes that the evidence, though of high quality, shows a balance between estimates of harms and benefits. The best action will depend on local circumstances, patient values or preferences.
Moderate Quality Evidence	Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.	The work group is confident that the benefits outweigh the risks, but recognizes that the evidence has limitations. Further evidence may impact this recommendation. This is a recommendation that likely applies to most patients.	The work group recognizes that there is a balance between harms and benefit, based on moderate quality evidence, or that there is uncertainty about the estimates of the harms and benefits of the proposed intervention that may be affected by new evidence. Alternative approaches will likely be better for some patients under some circumstances.
Low Quality Evidence	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate or any estimate of effect is very uncertain.	The work group feels that the evidence consistently indicates the benefit of this action outweighs the harms. This recommendation might change when higher quality evidence becomes available.	The work group recognizes that there is significant uncertainty about the best estimates of benefits and harms.

Clinical Algorithm(s)

The following detailed and annotated clinical algorithms are provided in the original guideline document (see the "Guideline Availability" field):

Main Algorithm
Acute Pharyngitis Algorithm
Non-Infectious Rhinitis Algorithm
Acute Sinusitis Algorithm

Scope

Disease/Condition(s)

Respiratory illnesses:

- Viral upper-respiratory infection
- Acute pharyngitis
- Non-infectious rhinitis (allergic and nonallergic)
- Acute sinusitis

Guideline Category

Diagnosis

Evaluation

Management

Treatment

Clinical Specialty

Allergy and Immunology

Family Practice

Infectious Diseases

Internal Medicine

Otolaryngology

Pediatrics

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Health Plans

Hospitals

Managed Care Organizations

Nurses

Physician Assistants

Physicians

Respiratory Care Practitioners

Guideline Objective(s)

Overall Goal

To provide evidence-based recommendations and supporting content regarding the appropriate care and antibiotic use for patients with the following acute upper-respiratory conditions:

Viral upper-respiratory infections
Acute pharyngitis
Non-infectious rhinitis
Acute sinusitis

Aims

To decrease the percentage of patients with symptoms of acute pharyngitis but without confirmed Group A Streptococcal pharyngitis diagnosis who are prescribed an antibiotic
To increase the percentage of patients diagnosed with allergic rhinitis who are prescribed intranasal corticosteroid therapy as initial treatment

Target Population

Infants greater than three months, children, adolescents and adults

Interventions and Practices Considered

1. Testing for Group A streptococcal (GAS) pharyngitis in the presence of specific criteria
2. Intranasal corticosteroids as initial treatment for allergic rhinitis
3. Diagnosis of acute bacterial rhinosinusitis (ABRS) based on clinical presentation
4. Treatment for ABRS
    - Symptomatic care as initial treatment
    - Delayed or immediate antibiotic

Note: The following were considered but not recommended: antibiotics for treatment of common cold symptoms; empirical antibiotic treatment of suspected GAS pharyngitis.

Major Outcomes Considered

- Rate of inappropriate antibiotic use
- Rate of intranasal corticosteroid use
- Adverse effects of medications

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Literature Search

A consistent and defined literature search process is used in the development and revision of the Institute for Clinical Systems Improvement (ICSI) guidelines. Literature searches for this guideline were done in PubMed under following parameters:

Time frame: May 2012–February 2017 for all topics except antibiotic use for strep pharyngitis and pharmacologic treatment for allergic and non-allergic rhinitis. The time frame for these two topics included January 2005–April 2017.
Types of studies searched for: systematic reviews and meta-analyses, randomized controlled trials

(RCTs) and observational studies (case-control, cohort and cross-sectional studies).
Population: children and adults.
All studies were published in English and included humans.

Exclusion Criteria

Article is out of scope – topic went into detail beyond what is being covered in the guideline. Information beyond the scope of the primary care clinician including but not limited to: comparisons within a drug class, detailed pharmacokinetics of medications, first-line vs. alternative medications, diagnosis and treatment for conditions that potentially overlap with upper respiratory conditions or complications from those conditions (e.g. influenza, otitis media).
Article is not relevant – although it was captured in the search, the article actually dealt with something different and therefore was not relevant to the guideline. The article was included in the search results, however the focus of the article was not relevant. Despite best efforts, search terms will sometimes capture articles that do not coincide with the content that is desired. These exclusions represent the imperfect nature of search terms. These articles were excluded by ICSI staff and/or work group members.

For detailed list of literature search terms by topic, see Appendix A in the original guideline document.

In addition to the literature searches, articles were obtained by work group members and ICSI staff. Those vetted by the work group were included in the guideline when appropriate.

Number of Source Documents

159 articles were included as references, 19 of which support formal recommendations.

See the "Study Selection Flowchart" companion document (see the Availability of Companion Documents" field) for the flow of studies through the selection process.

Methods Used to Assess the Quality and Strength of the Evidence

Expert Consensus

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Quality of Evidence and Strength of Recommendations

Category	Quality Definitions	Strong Recommendation	Weak Recommendation
High Quality Evidence	Further research is very unlikely to change confidence in the estimate of effect.	The work group is confident that the desirable effects of adhering to this recommendation outweigh the undesirable effects. This is a strong recommendation for or against. This applies to most patients.	The work group recognizes that the evidence, though of high quality, shows a balance between estimates of harms and benefits. The best action will depend on local circumstances, patient values or preferences.
Moderate Quality Evidence	Further research is likely to have an important impact on confidence in the estimate of effect and may	The work group is confident that the benefits outweigh the risks, but recognizes that the evidence has limitations. Further	The work group recognizes that there is a balance between harms and benefit, based on moderate quality evidence, or that there is uncertainty about the estimates of the harms and benefits of the proposed intervention that may be

Category	Quality Definitions	Strong Recommendation	Weak Recommendation
	change the estimate.	evidence may impact this recommendation. This is a recommendation that likely applies to most patients.	affected by new evidence. Alternative approaches will likely be better for some patients under some circumstances.
Low Quality Evidence	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate or any estimate of effect is very uncertain.	The work group feels that the evidence consistently indicates the benefit of this action outweighs the harms. This recommendation might change when higher quality evidence becomes available.	The work group recognizes that there is significant uncertainty about the best estimates of benefits and harms.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Methodology

The Institute for Clinical Systems Improvement (ICSI) utilizes the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology system. GRADE involves systematically evaluating the quality of evidence (high, moderate, low, very low) and developing a strength of recommendation (strong, weak). For more detailed information on GRADE, please visit www.gradeworkinggroup.org/ . In addition, when GRADE methodology could not be applied, the work group developed consensus recommendations.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Document Development and Revision Process

The development process is based on a number of long-proven approaches and is continually being revised based on changing community standards. The Institute for Clinical Systems Improvement (ICSI) staff, in consultation with the work group and a medical librarian, conduct a literature search to identify systematic reviews, randomized clinical trials, meta-analysis, other guidelines, regulatory statements and other pertinent literature. This literature is evaluated based on the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology by work group members. When needed, an outside methodologist is consulted.

The work group uses this information to develop or revise clinical flows and algorithms, write recommendations, and identify gaps in the literature. The work group gives consideration to the importance of many issues as they develop the guideline. These considerations include the systems of care in the community and how resources vary, the balance between benefits and harms of interventions, patient and community values, the autonomy of clinicians and patients and more. All decisions made by the work group are done using a consensus process.

ICSI's medical group members and sponsors review each guideline as part of the revision process. They provide comment on the scientific content, recommendations and implementation strategies. This feedback is used by and responded to by the work group as part of their revision work. Final review and approval of the guideline is done by ICSI's Committee on Evidence-Based Practice. This committee is made up of practicing clinicians and nurses, drawn from ICSI member medical groups.

Implementation Recommendations and Measures

These are provided to assist medical groups and others to implement the recommendations in the guidelines. Where possible, implementation strategies are included that have been formally evaluated and tested. Measures are included that may be used for quality improvement as well as for outcome reporting. When available, regulatory or publicly reported measures are included.

Document Revision Cycle

Scientific documents are revised every 12 to 24 months as indicated by changes in clinical practice and literature. ICSI staff monitors major peer-reviewed journals every month for the guidelines for which they are responsible. Work group members are also asked to provide any pertinent literature through check-ins with the work group midcycle and annually to determine if there have been changes in the evidence significant enough to warrant document revision earlier than scheduled. This process complements the exhaustive literature search that is done on the subject prior to development of the first version of a guideline.

Rating Scheme for the Strength of the Recommendations

See the "Rating Scheme for the Strength of the Evidence" field.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

The Institute for Clinical Systems Improvement (ICSI) seeks review from members and the public during the revision process.

Member Review

All ICSI documents are available for member review at two points in the ICSI revision process. The ICSI Response Report is sent to members at the beginning of a document revision. The goal of this report is to solicit feedback about the guideline, including but not limited to the algorithm, content, recommendations, and implementation. At the end of the revision process, members are invited to provide feedback on the guideline.

The work group would like to thank all those who took time to thoughtfully and thoroughly review the draft and submitted comments for the Diagnosis and Treatment of Respiratory Illness in Children and Adults guideline.

Public Comment

ICSI makes a draft of the guideline available to the public on the ICSI Web site. The public is invited to comment in an effort to get feedback prior to its finalization. All comments will be reviewed by the ICSI facilitator and work group members when needed. ICSI work group may or may not make changes to the guideline based on public comment responses.

The work group would like to thank all those who took time to thoughtfully and thoroughly review the draft and submitted comments for the Diagnosis and Treatment of Respiratory Illness in Children and Adults guideline.

Invited Reviews

For some guidelines, ICSI will invite experts in the community to comment on a guideline draft prior to finalization. This is done during the public comment period.

No invited review was done for the Diagnosis and Treatment of Respiratory Illness in Children and Adults guideline.

ICSI Patient Advisory Council (PAC)

The ICSI Patient Advisory Council responds to any guideline review requests put forth by ICSI facilitators and work groups. The PAC members may be involved at the beginning, middle, and/or end of the revision process. Patient advisors who serve on the council consistently share their experiences and perspectives in either a comprehensive or partial review of a document.

The work group would like to acknowledge the work done by the ICSI Patient Advisory Council in reviewing the Diagnosis and Treatment of Respiratory Illness in Children and Adults and thank them for their input.

Evidence Supporting the Recommendations

References Supporting the Recommendations

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Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified for each recommendation (see the original guideline document).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

See the "Benefits" and "Benefits-Harms Assessment" sections in the "Major Recommendations" field for benefits of specific interventions.

Potential Harms

See the "Harm" and "Benefits-Harms Assessment" sections in the "Major Recommendations" field for analysis of harms of specific interventions.

Contraindications

Contraindications

- Topical decongestants should not be used for longer than 72 hours, owing to the potential for rebound congestion.
- Aspirin is not recommended for children because of the risk of Reye's syndrome.
- Aspirin, ibuprofen and naproxen should be avoided by persons who are not eating well (risk of gastrointestinal upset), have a history of peptic ulcer or related disorder, or have aspirin-sensitive asthma, coronary artery disease or have renal dysfunction.
- Avoid using honey preparations for children under one year because of the risk of botulism.
- Oral decongestants should be used with caution in patients with hypertension or cardiovascular disease.

Qualifying Statements

Qualifying Statements

- The information contained in this Institute for Clinical Systems Improvement (ICSI) Health Care Guideline is intended primarily for health professionals and other expert audiences.
- This ICSI Health Care Guideline should not be construed as medical advice or medical opinion related to any specific facts or circumstances. Patients and families are urged to consult a health care professional regarding their own situation and any specific medical questions they may have. In addition, they should seek assistance from a health care professional in interpreting this ICSI Health Care Guideline and applying it in their individual case.
- This ICSI Health Care Guideline is designed to assist clinicians by providing an analytical framework for the valuation and treatment of patients, and is not intended either to replace a clinician's judgment or to establish a protocol for all patients with a particular condition.

Implementation of the Guideline

Description of Implementation Strategy

Implementation Recommendations

Prior to implementation, it is important to consider current organizational infrastructure that addresses the system and process design; training, education and culture; and the need to shift values, beliefs and behaviors of the organization.

Antibiotic Stewardship Resources

Inappropriate antibiotic use can lead to antibiotic resistance. According to the Centers for Disease Control and Prevention (CDC), antibiotic resistance can lead to an estimated 2 million infections and 23,000 deaths per year in the United States. Additionally, antibiotics can lead to medication-related adverse events for patients taking them. One of every five visits to the emergency departments is due to adverse antibiotic drug reactions. An estimated 5% to 25% of patients who use antibiotics have an adverse event with about 1 in 1,000 having a serious adverse event.

Antibiotic overprescribing leads to the false perception that patients need antibiotics to feel well, while not taking into consideration the harms of overprescribing such as side effects and antibiotic resistance. The potential harms of antibiotic use make it especially important to use antibiotics judiciously.

The following resources on antibiotic stewardship in outpatient settings are available online:

CDC's Get Smart: Know When Antibiotics Work in Doctor's Office at https://www.cdc.gov/getsmart/community/improving-prescribing/core-elements/core-outpatient-stewardship.html
Minnesota One Health Antibiotic Stewardship Collaborative at http://www.health.state.mn.us/onehealthabx/index.html

Implementation Tools

Audit Criteria/Indicators

Clinical Algorithm

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Short S, Bashir H, Marshall P, Miller N, Olmschenk D, Prigge K, Solyntjes L. Diagnosis and treatment of respiratory illness in children and adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2017 Sep. 76 p. [159 references]

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2017 Sep

Guideline Developer(s)

Institute for Clinical Systems Improvement - Nonprofit Organization

Guideline Developer Comment

The Institute for Clinical Systems Improvement (ICSI) is comprised of approximately 50 medical group and hospital members representing 8,500 clinicians in Minnesota and surrounding areas, and is sponsored by three nonprofit health plans. For a list of sponsors and participating organizations, see the ICSI Web site .

Source(s) of Funding

- The Institute for Clinical Systems Improvement (ICSI) provided the funding for this guideline revision. ICSI is a not-for-profit, quality improvement organization based in Bloomington, Minnesota. ICSI's work is funded by the annual dues of the member medical groups and three sponsoring health plans in Minnesota. Individuals on the work group are not paid by ICSI but are supported by their medical group for this work.
- ICSI facilitates and coordinates the guideline development and revision process. ICSI, member medical groups and sponsoring health plans review and provide feedback but do not have editorial control over the work group. All recommendations are based on the work group's independent evaluation of the evidence.

Guideline Committee

Respiratory Illness in Children and Adults Work Group

Composition of Group That Authored the Guideline

Work Group Members: Sonja Short, MD (*Work Group Leader*) (Fairview Health Services) (Internal Medicine and Pediatrics); Hiba Bashir, MD (Fairview Health Services) (Allergy/Immunology); Danielle Olmschenk, PharmD (Fairview Health Services) (Pharmacy); Peter Marshall, PharmD (HealthPartners) (Pharmacy); Nathaniel Miller, MD (Mayo Clinic) (Family Medicine); Kimberly Prigge, APRN, CNP (Mayo Clinic) (Family Medicine); Laura Solyntjes, MD (South Lake Pediatrics) (Pediatrics); Jodie Dvorkin, MD, MPH (Institute for Clinical Systems Improvement [ICSI]) (Project Manager/Health Care & Consultant); Senka Hadzic, MPH (ICSI) (Clinical Systems Improvement Facilitator)

Financial Disclosures/Conflicts of Interest

The Institute for Clinical Systems Improvement (ICSI) has long had a policy of transparency in declaring potential conflicting and competing interests of all individuals who participate in the development, revision and approval of ICSI guidelines and protocols.

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Research Grants: None
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Research Grants: None
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Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Snellman L, Adams W, Anderson G, Godfrey A, Gravley A, Johnson K, Marshall P, Myers C, Nesse R, Short S. Diagnosis and treatment of respiratory illness in children and adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jan. 86 p. [194 references].

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available for purchase from the Institute for Clinical Systems Improvement (ICSI) Web site . Also available to ICSI members for free at the ICSI Web site and to Minnesota health care organizations free by request at the ICSI Web site .

Availability of Companion Documents

The following are available:

ICSI scientific document development & revision process. Bloomington (MN): Institute for Clinical Systems Improvement. 2 p. Available from the Institute for Clinical Systems Improvement (ICSI) Web site .
ICSI scientific document program. Bloomington (MN): Institute for Clinical Systems Improvement. 3 p. Available from the ICSI Web site .

The following companions are provided to those who access the guideline (see the "Guideline Availability" field):

Diagnosis and treatment of respiratory illness in children and adults. Evidence table. Bloomington (MN): Institute for Clinical Systems Improvement; 2017 Sep. 1 p.
Diagnosis and treatment of respiratory illness in children and adults. Study selection flowchart. Bloomington (MN): Institute for Clinical Systems Improvement; 2017 Sep. 1 p.

Additionally, the following are available in the appendices of the original guideline document:

Aims and measures (quality measures)
ICSI shared decision-making model

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on June 30, 1999. The information was verified by the guideline developer on August 4, 1999. This NGC summary was updated by ECRI on October 13, 2000, December 4, 2002 and on April 18, 2003. The updated information was verified by the guideline developer on May 22, 2003. This summary was updated again by ECRI on August 5, 2004. This summary was updated by ECRI Institute on January 12, 2005 following the release of a public health advisory from the U.S. Food and Drug Administration (FDA) regarding the use of some non-steroidal anti-inflammatory drug products. This summary was updated on April 15, 2005 following the withdrawal of Bextra (valdecoxib) from the market and the release of heightened warnings for Celebrex (celecoxib) and other nonselective nonsteroidal anti-inflammatory drugs (NSAIDs). This summary was updated by ECRI Institute on June 16, 2005, following the FDA advisory on COX-2 selective and non-selective non-steroidal anti-inflammatory drugs (NSAIDs). This summary was updated by ECRI Institute on April 16, 2007. This summary was updated by ECRI Institute on October 3, 2007 following the FDA advisory on Rocephin (ceftriaxone sodium). This summary was updated by ECRI Institute on April 7, 2008. This summary was updated by ECRI Institute on July 28, 2008 following the UFDA advisory on fluoroquinolone antimicrobial drugs. This summary was updated by ECRI Institute on November 17, 2008 following the FDA advisory on OTC cough and cold medications. This summary was updated by ECRI Institute on May 5, 2009 following the FDA advisory on Rocephin (ceftriaxone sodium). This summary was updated by ECRI Institute on May 19, 2011. This summary was updated by ECRI Institute on April 16, 2013. This summary was updated by ECRI Institute on October 25, 2013 following the FDA advisory on Fluoroquinolone Antibacterial Drugs. This summary was updated by ECRI Institute on October 28, 2013 following the U.S. Food and Drug Administration advisory on Acetaminophen. This summary was updated by ECRI Institute on September 18, 2015 following the FDA advisory on NSAIDs. This summary was updated by ECRI Institute on May 18, 2016 following the FDA advisory on fluoroquinolone antibacterial drugs. This summary was updated by ECRI Institute on February 15, 2017 following the FDA advisory on general anesthetic and sedation drugs. This summary was updated by ECRI Institute on March 19, 2018. The information was verified by the guideline developer on April 2, 2018.

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